

PATENT
Atty. Dkt. No. APPM/002622.D1/CMP/ECP/CKM

IN THE CLAIMS:

Please cancel claim 29-45 without prejudice, add new claims 50-65 and amend claims as follows:

1-45. (Cancelled).

46. (Currently Amended) A method for processing electroplating a metal onto a substrate plating surface, comprising:

~~leading positioning the substrate plating surface face-up onto a substrate support member;~~

~~positioning the substrate support member[.] in at a first vertical position adjacent to a cavity ring and forming a fluid volume by contour of the cavity ring and the substrate in a processing cell;~~

~~flowing an process electroplating solution into onto the fluid volume continuously substrate plating surface while rotating the substrate plating surface at the first vertical position;~~

~~while collecting the process capturing the electroplating solution used in the electroplating process flowing from the fluid volume with a first catch-cup fluid receiving member;~~

~~positioning the substrate support member in at a second vertical position in the processing cell; and~~

~~rinsing the substrate plating surface with a rinse rinsing agent at the second vertical position; and~~

~~while collecting capturing the rinse rinsing agent with a second catch-cup fluid receiving member.~~

47. (Currently Amended) The method of claim 46, further comprising rotating the substrate during the flowing the process electroplating solution and the rinsing the substrate plating surface.

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48. (Currently Amended) The apparatus method of claim 46, further comprising vibrating the substrate during the flowing the process electroplating solution.

49. (New) The method of claim 46, further comprising providing a peripheral seal between the substrate support member and a back side of the substrate.

50. (New) The method of claim 46, further comprising purifying the rinsing agent captured by the second fluid receiving member.

51. (New) The method of claim 46, further comprising applying a plating bias between the substrate plating surface and an anode positioned above the substrate plating surface.

52. (New) The method of claim 46, further comprising spin-drying the substrate.

53. (New) An apparatus for electroplating a metal on a substrate plating surface comprising:

means for positioning the substrate plating surface face-up on a substrate support member;

means for positioning the support member, at a first vertical position in a processing cell;

means for flowing an electroplating solution onto the substrate plating surface while rotating the substrate plating surface at the first vertical position;

means for capturing the electroplating solution used in the electroplating process with a first fluid receiving member;

means for positioning the support member at a second vertical position in the processing cell;

means for rinsing the substrate plating surface with a rinsing agent at the second vertical position; and

means for capturing the rinsing agent with a second fluid receiving member.

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54. (New) The apparatus of claim 53, further comprising means for rotating the substrate during the flowing the electroplating solution and the rinsing the substrate plating surface.

55. (New) The apparatus of claim 53, further comprising means for vibrating the substrate during the flowing the electroplating solution.

56. (New) The apparatus of claim 53, further comprising means for providing a peripheral seal between the substrate support member and a back side of the substrate.

57. (New) The apparatus of claim 53, further comprising means for purifying the rinsing agent captured by the second fluid receiving member.

58. (New) The apparatus of claim 53, further comprising means for applying a plating bias between the substrate plating surface and an anode positioned above the substrate plating surface.

59. (New) The apparatus of claim 53, further comprising means for spin-drying the substrate.

60. (New) A method for plating a metal onto a substrate, comprising:
positioning the substrate on a substrate support member, wherein a plating surface of the substrate is facing up;
positioning the substrate at a first vertical position;
flowing a plating solution to the plating surface of the substrate while rotating the substrate at the first vertical position;
capturing the plating solution with a first catch cup ;
positioning the substrate at a second vertical position;
flowing a rinsing agent to the plating surface of the substrate while rotating the substrate at the second vertical position; and

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capturing the rinsing agent with a second catch cup.

61. (New) The method of claim 60, wherein the first and second catch cups are disposed about a perimeter of the substrate support member.

62. (New) The method of claim 60, further comprising vibrating the substrate during flowing the plating solution.

63. (New) The method of claim 60, further comprising purifying the captured rinsing agent.

64. (New) The method of claim 60, further comprising providing a peripheral seal between the substrate support member and a back side of the substrate.

65. (New) The method of claim 64, further comprising providing a fluid flow directed at the back side of the substrate.